

INTERNATIONAL SEARCH REPORT

PCT/GB2004/001592

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F24F13/02 F16L9/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F24F F16L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 285 818 A (HUMMERT III AUGUST H)	1
Y	15 February 1994 (1994-02-15) the whole document	2-7, 9-12, 14-16
Y	GB 1 241 413 A (ATOMIC POWER CONSTRUCTIONS LIMITED) 4 August 1971 (1971-08-04) claims 1,3; figures 9,10	2-7,9-11
Y	DATABASE EPODOC EUROPEAN PATENT OFFICE, THE HAGUE, NL; XP002289554 abstract	12,14-16
Y	-& GR 1 002 959 B (DAIOS ASTERIOS) 1 September 1998 (1998-09-01) abstract; figures	12,14-16
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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

10 August 2004

Date of mailing of the international search report

17/08/2004

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 008, no. 140 (M-305), 29 June 1984 (1984-06-29) -& JP 59 038542 A (BABCOCK HITACHI KK), 2 March 1984 (1984-03-02) abstract	1
A	PATENT ABSTRACTS OF JAPAN vol. 1996, no. 10, 31 October 1996 (1996-10-31) -& JP 08 159378 A (SEKISUI CHEM CO LTD), 21 June 1996 (1996-06-21) abstract	12,15,16
A	US 2 378 272 A (WHITAKER LAURENCE E) 12 June 1945 (1945-06-12) the whole document	1

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2004/001592

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 13, 18
because they relate to subject matter not required to be searched by this Authority, namely:
Rule 6.2 PCT
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

PCT/GB2004/001592

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 5285818	A	15-02-1994	US CA	5137057 A 2017420 A1	11-08-1992 26-11-1990
GB 1241413	A	04-08-1971	DE	1779193 A1	04-11-1971
GR 1002959	B	01-09-1998	NONE		
JP 59038542	A	02-03-1984	NONE		
JP 08159378	A	21-06-1996	NONE		
US 2378272	A	12-06-1945	NONE		